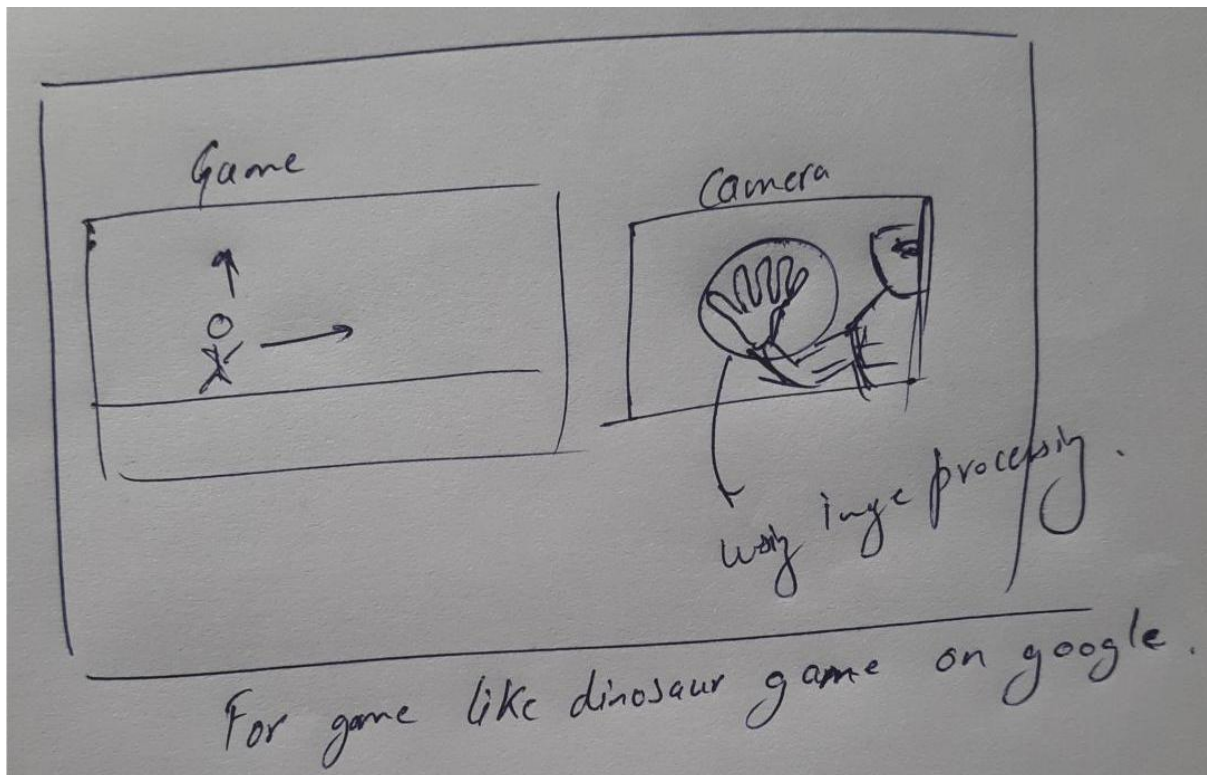# Abstract for Python Project

Introduction

We are planning to create a simple camera based application where the commands are given by our hand gestures. Basically we will use image processing features to give commands to play a simple game .

Libraries Used

For image processing we will be using OpenCV, Mediapipe and Pygame to guess hand gestures and some other modules.

An Imagination of Project

We will first learn the basics of OpenCV to connect a hand gesture to a specific key on the keyboard followed by the creation of the gaming interface. An estimated time of at least 2 weeks will be required.

Timeline

26th to 30th June - Learning to use the OpenCV library and the basics concepts of Image Processing.
1st to 4th July - Writing the code for mapping hand gestures
5th to 9th - Developing the game and the gaming interface

10th to 12th - Enhancing the program, making sure we wrote the code in the most efficient/pythonic way possible. Testing the game and Debugging if required.

Motivation

This is the first project we are doing using Python. We both are interested in Image Processing and Game Development. Therefore we felt that it would be a good start for us to create a project requiring both these skills.

References

PyCK Course Lectures and Notes
ER101 Lectures and Notes based on image processing using OpenCV (Electronics and Robotics Club, IIT Bombay)
Youtube.